

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 97-045  
NPDES PERMIT NO. CA0030074

WASTE DISCHARGE REQUIREMENTS FOR:

U. S. DEPARTMENT OF THE NAVY  
FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND  
POINT MOLATE SITE  
RICHMOND, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The United States Department of the Navy, Fleet and Industrial Supply Center, Oakland, hereinafter called the discharger, in a letter dated November 6, 1996, requested reissuance of waste discharge requirements and a permit to discharge wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES). This request is made due to change of wastewater characteristics and wastewater treatment processes.
2. This discharge is presently governed by Waste Discharge Requirements in Order No. 95-010, adopted by the Board on January, 1995.
3. The discharger owns wastewater treatment facilities for the Point Molate Site, which is the former fuel depot of the Naval Supply Center in Oakland. The treatment plant is operated by the U.S. Navy, Engineering Field Activity, West. Point Molate is located at the end of Western Drive on the edge of San Pablo Bay just to the north of the Richmond-San Rafael Bridge in Richmond, Contra Costa County. Over 40 million gallons of fuel and oil were stored in 29 aboveground and underground tanks, including Navy Special Fuel Oil, diesel, and jet turbine fuel. There is currently no fuel being stored at Point Molate. Two tanks, 1 and 20, have been used as holding tanks to store wastewater generated from the treatment pond system.
4. The U.S. Environmental Protection Agency (USEPA) and the Board have classified this discharge as a minor discharge.
5. The first component of the discharge, called W-001, consists of subsurface flow from the French drain system around out-of-service petroleum fuel tanks and valve boxes, and stormwater flow from the vicinity of the treatment ponds. There is no industrial process waste or domestic sewage in the discharge. The stormwater is initially treated through an oil/water separator and is then treated by facultative ponds, sand filtration, and, when necessary, organoclay media filtration. The backwash water from the sand filters will be recirculated through the ponds. The treatment ponds consist of three aerated ponds operated

in series with the option to recirculate between the ponds. The ponds combine aeration and facultative treatment. The wastewater treatment ponds are approximately six feet deep and located about 140 feet from the shoreline. The treatment ponds are constructed on fill covering a former sump pond. Treated stormwater is discharged intermittently, depending on the rainfall, through a deep water outfall. The outfall is located about 2000 feet offshore from the intersection of Pond Road and Burma Road, north of the point of land known as Point Molate, at North Latitude 37 deg., 57 min., 00 sec.; and West Longitude 122 deg., 25 min., 00 sec. A map showing the location of the facility is included as attachment A. A 10:1 dilution factor is applied at this outfall. Discharge from the treatment ponds is intermittent, with the discharges one to four days (8 hours /day) per month in the dry season and up to continuous flow during peak rainy periods. Wet season pump flow rates average 288,000 gallons/day.

6. The second component of the discharge, called W-002, is from a 900 foot long groundwater extraction trench which intercepts dissolved and free floating contaminants in groundwater from an area down gradient of the three treatment ponds. This liquid is treated at a package treatment plant. The treatment is comprised of oil-water separation, a bioreactor, a sand filter, and a Granular Activated Carbon bed system. The backwash water from the sand filter will be recirculated through the package treatment plant. The treatment plant has a design capacity of 144,000 gallons per day. Discharge of this water stream is through the same deepwater outfall.

Discharge from the package groundwater treatment plant is continuous with increased flows during the rainy season due to additional infiltration into the extraction trench. The average dry season discharge from the treatment plant is 7,200-14,400 gallons per day and the average wet season discharge is expected to be 57,600-86,400 gallons per day.

7. The Regional Board adopted a revised Water Quality Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.
8. The effluent limit for copper (37 micrograms per liter ( $\mu\text{g/l}$ )) in this permit is derived using 4.9  $\mu\text{g/l}$  copper as the receiving water concentration that would, in the best professional judgement of the Board, satisfy the San Francisco Bay Regional Water Quality Control Board Basin Plan narrative toxicity objective.
9. Effluent limitations in this permit are based on the plans, policies, and water quality criteria of the Basin Plan, Quality Criteria for Water (EPA 440/5-86-001, 1986; Gold Book), Applicable Federal Regulations (40 CFR Parts 122 and 131), the National Toxics Rule (57 FR 60848, 22 December 1992; NTR), and Best Professional Judgment. Due to the salinity in the San Pablo Bay waters, effluent limitations for the discharge are based on marine water quality objectives as specified in the Basin Plan.

10. The Basin Plan contains water quality objectives and beneficial uses for San Francisco Bay. The beneficial uses of San Francisco Bay are as follows:

- Industrial Process and Service Supply
- Navigation
- Water Contact Recreation
- Non-contact Water Recreation
- Ocean Commercial and Sport Fishing
- Wildlife Habitat
- Preservation of Rare and Endangered Species
- Fish Migration
- Fish Spawning
- Shellfish Harvesting
- Estuarine Habitat

11. Federal Regulations for stormwater discharges were promulgated by the U.S. Environmental Protection Agency on November 19, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Available Technology Economically Available (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial stormwater discharges.
12. This Order regulates stormwater from the french drain system around the large tanks at the facility. The stormwater from the rest of the site is regulated by a State Water Resources Control Board's Industrial Activities Storm Water General Permit, (#207S003104). Point Molate filed a Notice of Intent in 1991. The facility has submitted their Annual Report for Storm Water Discharges in June 1996, which includes their updated Storm Water Pollution Prevention Program from April 1993.
13. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.
14. The City of Richmond has future plans to use a domestic wastewater treatment plant located on site, or build a new package wastewater treatment plant to facilitate interim leasing of Point Molate property. The existing plant includes a comminutor, an activated sludge/aeration tank, a recirculating biofilter, a clarifier basin, a final filter unit, and chlorination. The City of Richmond intends to apply for a NPDES permit transfer from the Navy for Order 95-010. Should the City of Richmond decide to build a new package domestic treatment plant to replace the existing domestic wastewater plant, the new plant would be regulated under Order 95-010. Order 95-010 would be revised and amended as appropriate.
15. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.

16. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the discharge, and have been provided an opportunity to submit their written views and recommendations.
17. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the United States Department of the Navy, Fleet and Industrial Supply Center Oakland shall comply with the following:

#### A. DISCHARGE PROHIBITIONS

1. Discharge of wastewater in a manner different from that described in Finding Nos. 5 and 6 is prohibited.
2. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.
3. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.
4. Discharges of water, materials, or wastes other than storm water, which are not otherwise authorized by this NPDES permit, to a storm drain system or waters of the State are prohibited.
5. Storm water discharges tributary to the oxidation ponds shall not cause pollution, contamination, or nuisance.

#### B. EFFLUENT LIMITATIONS

The term "effluent" in the following limitations means the combined effluent from the treatment ponds and the package groundwater treatment plant, unless otherwise specified, as discharged to San Francisco Bay.

1. The effluent discharged to San Francisco Bay shall not exceed the following limits:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	Instant- aneous Maximum
a. Biochem. Oxygen Demand (BOD <sub>5</sub> , 20 C)	mg/l	30	45	60	--
b. Total Suspended Solids	mg/l	30	45	60	--
c. Settleable Matter	ml/l-hr	0.1	-	--	0.2

2. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

3. **Acute Toxicity:** Representative samples of the effluent shall meet the following limits for acute toxicity: (Provision E.5 of this Order applies to these bioassays.)

The survival of organisms in undiluted effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival. The eleven sample median and 90th percentile effluent limitations are defined as follows:

**11 sample median:** A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

**90th percentile:** A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or less bioassay tests show less than 70 percent survival.

4. **Toxic Substances Effluent Limitations:** The effluent shall not exceed the following limits (a, e):

Table 1  
(All limits in µg/l)

<u>Constituent</u>	<u>Monthly Average (b)</u>	<u>Daily Average (b)</u>
1. Arsenic		200
2. Cadmium		30
3. Chromium (VI) (c)		110
4. Copper		37
5. Lead (f)		53
6. Mercury	0.21	1
7. Nickel (f)		65
8. Selenium (f)		50
9. Silver		23
10. Zinc (f)		580
11. Cyanide (d)		25
12. Polynuclear Aromatic Hydrocarbons (PAHs) (g)		2.4
13. Chlorinated Organic Compounds (h)		5

**Footnotes:** (for Table 1)

- These limits are based on marine water quality objectives, and are intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.
- Limits apply to the average concentration of all samples collected during the averaging period (Daily - 24-hour period; Monthly - Calendar month).
- The discharger may meet this limit as total chromium.
- The discharger may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.

- e. All analyses shall be performed using current USEPA Methods, as specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", SW-846, Third Edition. Detection limits, practical quantitative levels, and limits of quantitation will be taken into account in determining compliance with effluent limitations.
- f. Effluent limitation may be met as a 4-day average. If compliance is to be determined based on a 4-day average, then concentrations of four 24-hour composite samples shall be reported, as well as the average of four.
- g. PAHs shall mean the sum to acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthrene, benzo[k]-fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]-anthracene, fluorene, indeno[1,2,3-cd]pyrene and pyrene
- h. The effluent limit of 5 µg/l shall apply for each chlorinated organic compound as identified by U.S. EPA Method 8240.

### C. RECEIVING WATER LIMITATIONS

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
  - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
  - b. Bottom deposits or aquatic growths;
  - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
  - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
  - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State any one place within one foot of the water surface:
  - a. Dissolved Oxygen      5.0 mg/l, minimum  
  
The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.
  - b. Dissolved Sulfide      0.1 mg/l, maximum
  - c. pH      Variation from normal ambient pH by more than 0.5 pH units.
  - d. Un-ionized Ammonia    0.025 mg/l as N, annual median  
0.16 mg/l as N, max.

- e. Nutrients                      Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
- 3. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
- 4. Storm Water Discharge
  - a. Storm water discharges shall not adversely impact human health or the environment.
  - b. Storm water discharges shall not cause or contribute to a violation of any applicable water quality objective for receiving waters contained in the Basin Plan.

#### **D. SLUDGE MANAGEMENT PRACTICES**

- 1. All sludge generated by the discharger must be disposed of in a permitted landfill. If the discharger desires to dispose of sludge by a different method, a request for permit modification must be submitted to the Regional Water Quality Control Board 180 days before start-up of the alternative disposal practice.
- 2. Sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.
- 3. Duty to mitigate: The discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of adversely affecting human health or the environment.
- 4. The discharge of sludge shall not cause waste material to be in a position where it is, or can be carried from the sludge treatment and storage site and deposited in the waters of the State.
- 5. Any sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the temporary storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.
- 6. In the annual Self-Monitoring Report, the discharger shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.
- 7. Permanent on-site sludge storage or disposal activities are not authorized by this permit. A report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the discharger.

8. Sludge Monitoring and Reporting Provisions of this Board's "Standard Provisions and Reporting Requirements", dated August 1993, apply to sludge handling, disposal and reporting practices.
9. The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

#### **E. PROVISIONS**

1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 95-010, , pertinent to the wastewater treatment process described in Finding # 5 of this Order.
2. The Discharger shall comply with all sections of this Order immediately upon adoption.
3. This permit may be reopened to include a numeric mass loading limit for copper.
4. Where concentration limitations in mg/l or µg/l are contained in this Permit, the following Mass Emission Limitations shall also apply.

(Mass Emission Limit in kg/day = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies) x 3.78 (conversion factor).

5. Compliance with Acute Toxicity Effluent Limitation
  - a. Two compliance species shall be as specified by the Executive Officer. The discharger shall conduct a minimum of one screening of three species: three- spine stickleback, rainbow trout and fathead minnow. All tests in a single screening must be completed within ten days of each other. The three species screening requirement can be met using either flow-through or static renewal bioassays. The discharger shall submit screening test data acceptable to the Executive Officer, within ten months after adoption of this Order.
  - b. Compliance with Effluent Limitation B.3 (Acute Toxicity) of this Order shall be evaluated by measuring survival of test fishes exposed to undiluted effluent for 96 hours in static bioassays. Two fish species will be tested concurrently. Each fish species represents a single bioassay.
  - c. The Executive Officer may consider allowing compliance monitoring with only one fish species (the most sensitive of the two), if the discharger can document that the acute toxicity limitation, specified above, has not been exceeded during the previous three years, or that acute toxicity has been observed in only one of two fish species.
  - d. All bioassays shall be performed according to protocols approved by the USEPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.

6. Compliance With Toxic Substances Limitations: The discharger shall comply with Effluent Limitations B.4 immediately upon adoption of this Order.
7. The effluent limitation specified in this permit for polynuclear aromatic hydrocarbons (PAH's) is the detection limits achievable (from an economic standpoint) utilizing methods presently available. The discharger currently uses EPA Method 610 to analyze for PAH's, and this generally results in reporting limits of less than 0.2 µg/l for each PAH constituent. The discharger shall continue to achieve a reporting limit comparable to that used at present. Compliance determinations shall only be undertaken if the concentration of the any one or more of the PAH constituents is equal to or greater than the reporting limit.

#### **April 15 Reporting Requirements**

8. The discharger shall review, and update as necessary, its Operations and Maintenance Manual, annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.
9. Annually, the discharger shall review and update as necessary, its Contingency Plan as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.
10. The discharger shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the discharger's service responsibilities. A Treatment Facilities Evaluation Program report discussing the status of this evaluation program, including any recommended or planned actions, shall be submitted to the Board by April 15 of each year.

#### **Other Reporting Requirements**

11. Compliance Points
  - a. The discharger's compliance with the effluent limits described in B.4 in this permit will be determined by calculating a weighted average of the individual concentrations in each waste stream: W-001 (treatment ponds) and W-002 (groundwater package treatment plant). The discharger shall use the following formula to determine the total effluent concentration of each parameter:

$$E-003 \text{ (mg/l or ug/l)} = (E-001 \times F-001 + E-002 \times F-002) / (F-001 + F-002)$$

where:

E-001 = effluent concentration from W-001 (mg/l or ug/l)

E-002 = effluent concentration from W-002 (mg/l or ug/l)

E-003 = the combined effluent concentration

F-001 = flow of stream W-001 (million gallons per day-mgd)

F-002 = flow of stream W-002 (mgd)

- b. The point of compliance for effluent limitation B.1.a (BOD) and B.1.b (TSS) shall be in the effluent from the treatment ponds.
- c. The point of compliance for effluent limitation B.1.c (Settleable Matter), B.2 (pH), B.3 (Acute Toxicity) shall be in each of the effluent streams (i.e. from the treatment ponds and the groundwater package treatment plant).
12. The discharger shall comply with the Self-Monitoring Program for this order, as adopted by the Board and as may be amended by the Executive Officer.
13. The discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements " dated August 1993, or any amendments thereafter.
14. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

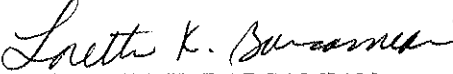
To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions, referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

15. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order are causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.
16. This Order expires on March 19, 2002. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 120 days before this expiration date as application for reissuance of waste discharge requirements.
17. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional

Administrator, EPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

18. The discharger shall be allowed, with the approval of the Executive Officer, to divert W-001 to the package treatment plant for treatment if the discharger can demonstrate the plant has adequate capacity to treat the additional flow. At that point, the more frequent monitoring in the Self Monitoring Program for either E-001 or E-002 shall apply.
19. Total Petroleum Hydrocarbon Effluent Limit
  - a. The discharger shall submit a technical report, acceptable to the Executive Officer, to propose a TPH effluent limit for E-001 by June 30, 1998 based on optimized performance of the oxidation ponds including, but not limited to, operational performance variability and factors affecting analytic test results. However, this technology-based TPH limit for the oxidation ponds shall also be protective of the beneficial uses of the San Francisco Bay. This permit will be amended to implement a formal TPH effluent limit.
  - b. The discharger shall submit a technical report, acceptable to the Executive Officer, to propose a TPH effluent limit for E-002 by April 30, 1998 based on optimized performance of the package groundwater treatment plant including, but not limited to, operational performance variability and factors affecting analytic test results. However, this technology-based TPH limit for package groundwater treatment plant shall also be protective of the beneficial uses of the San Francisco Bay. The discharger shall submit a preliminary report with analysis of the removal efficiency of the system for TPH by September 30, 1997. This permit will be amended to implement a formal TPH effluent limit.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 19, 1997.

  
LORETTA K. BARSAMIAN  
Executive Officer

Attachments:

- A. Location/Site Maps
- B. Summary of Report Due dates/Deadlines
- C. Standard Provisions and Reporting Requirements - August 1993
- D. Self-Monitoring Program
- E. Contingency Plan - Resolution 74-10

## ATTACHMENT B

### SUMMARY OF REPORT DUE DATES AND ACTION DEADLINES

#### ANNUAL REPORTS

<u>Due Date to Board</u>	<u>Name of Report/Reference</u>	
April 15	Operations & Maintenance Manual	E. 8
April 15	Contingency Plan	E. 9
April 15	Treatment Facilities Eval. Program	E. 10

#### SPECIFIC REPORT/ACTION DEADLINES

<u>Due Date to Board</u>	<u>Name of Report/Reference</u>	
September 30, 1997	Preliminary Technical Report for Total Petroleum Hydrocarbon (TPH) effluent limit for the Package Groundwater Treatment Plant	E. 11.b.
January 1, 1998	Acute Toxicity Species Screening Results	E. 5.a.
April 30, 1998	Final Technical Report for TPH effluent limit for the Package Groundwater Treatment Plant	E. 11.b.
June 30, 1998	Technical Report for TPH effluent limit for Treatment Ponds	E. 11.a.

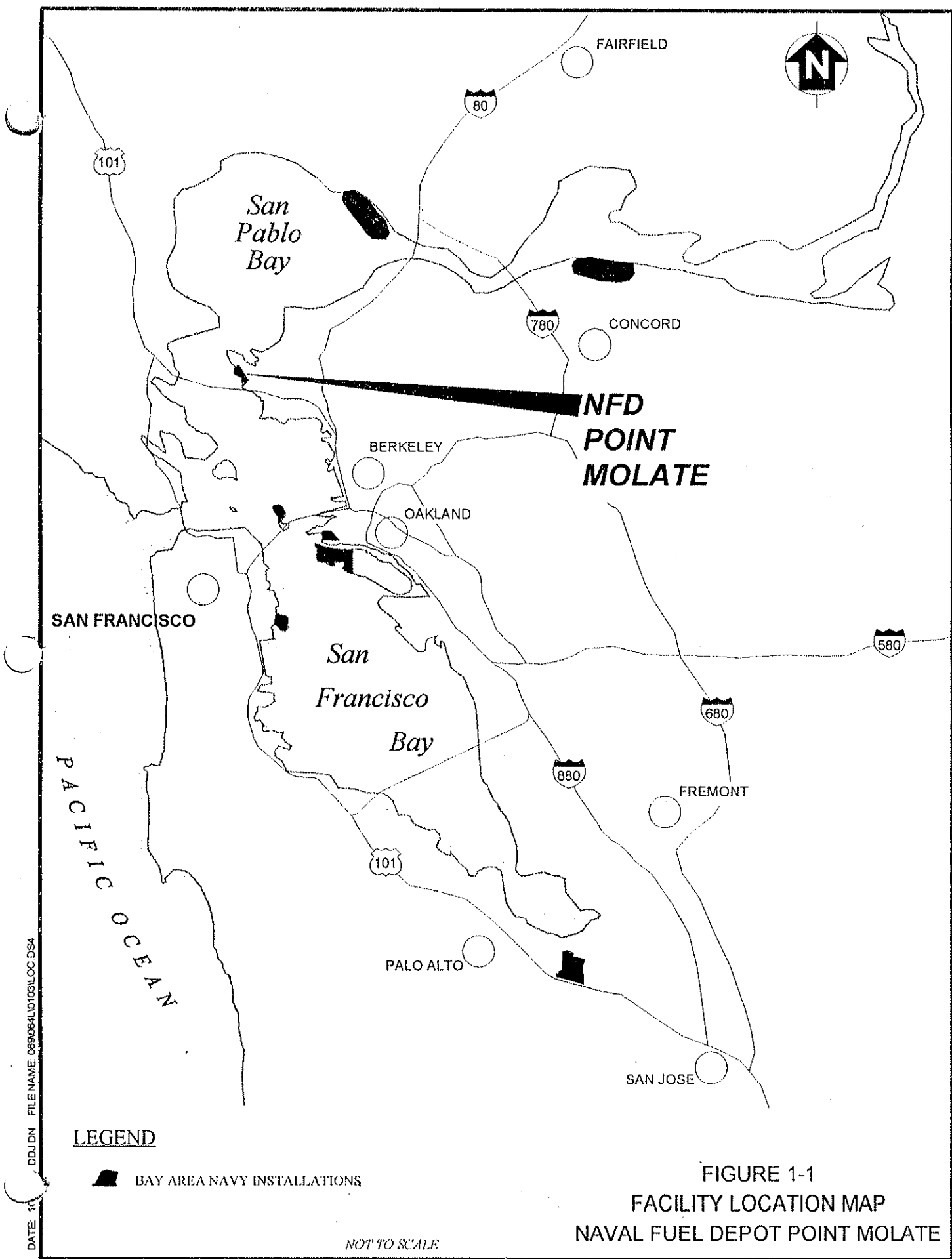
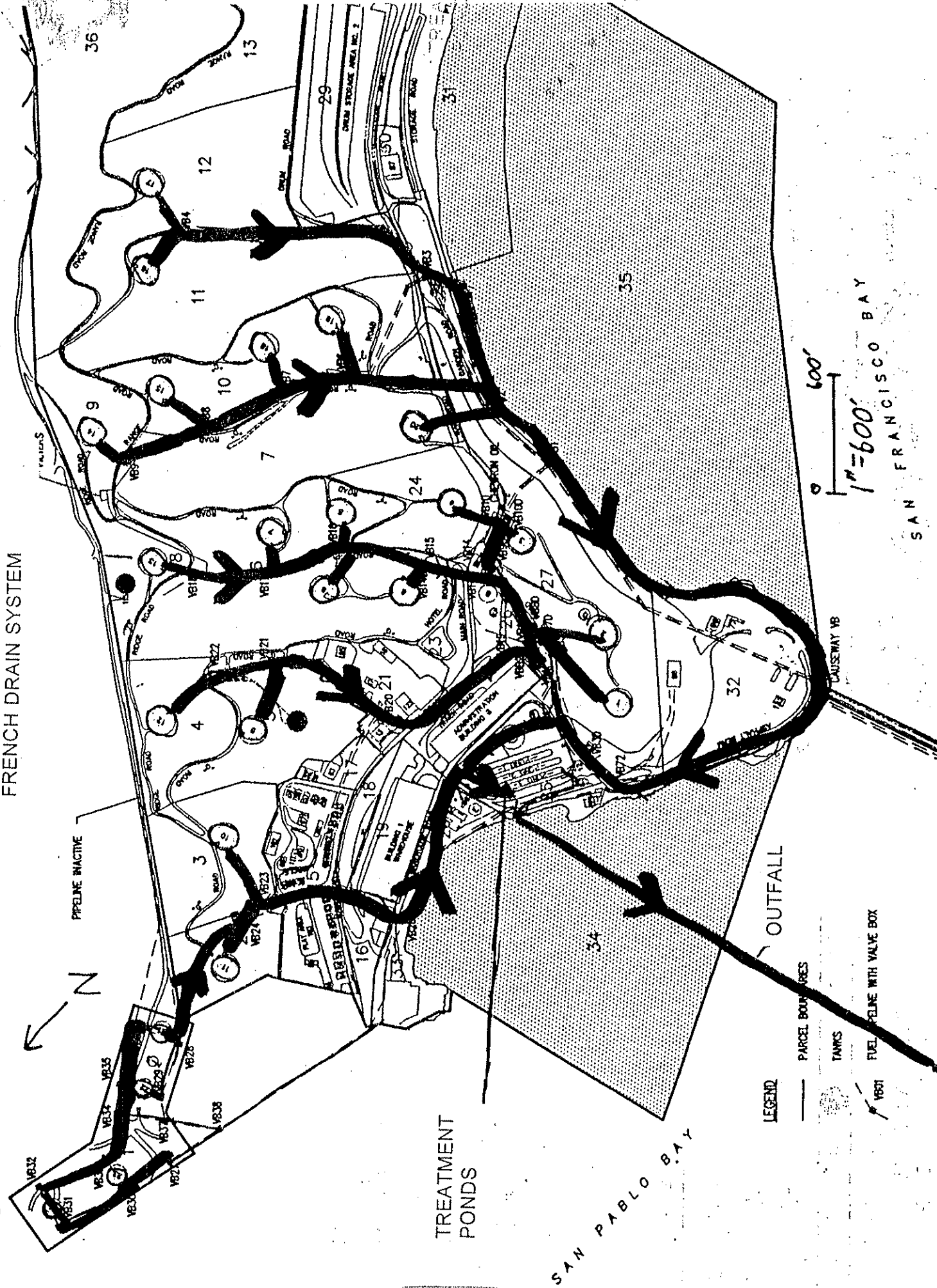


FIGURE 1-1  
FACILITY LOCATION MAP  
NAVAL FUEL DEPOT POINT MOLATE

# WASTE STREAM W-001 FRENCH DRAIN SYSTEM



WASTE STREAM W-002  
GROUNDWATER EXTRACTION TRENCH

EXISTING WASTEWATER  
OVERFLOW

OUTFALL

EXTRACTION WELL D

EXTRACTION WELL B

EXTRACTION WELL A

EXTRACTION TRENCH

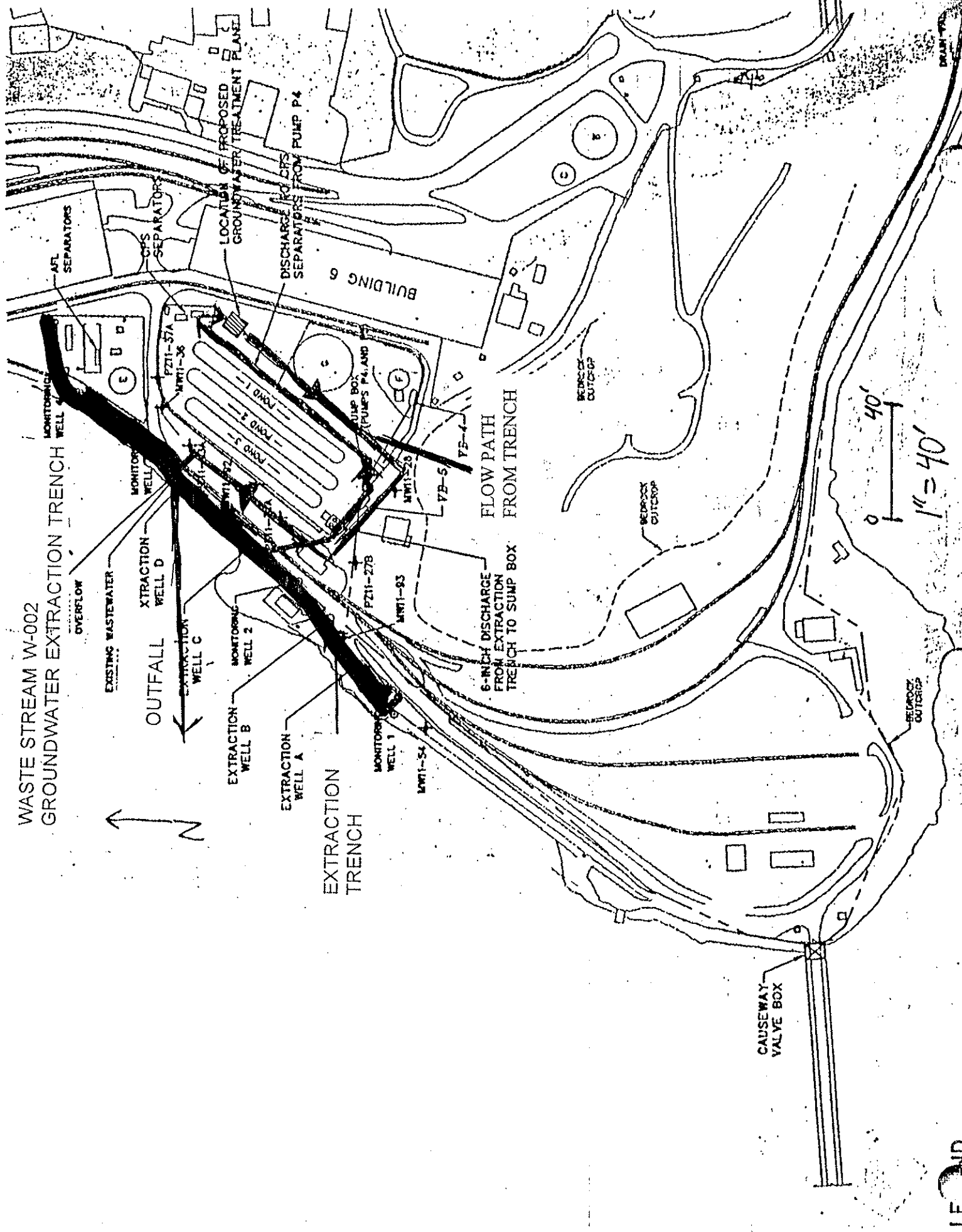
FLOW PATH  
FROM TRENCH

6-INCH DISCHARGE  
FROM EXTRACTION  
TRENCH TO PUMP BOX

CAUSEWAY  
VALVE BOX

40'

1" = 40'



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

U.S. DEPARTMENT OF THE NAVY  
FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND  
POINT MOLATE SITE  
CONTRA COSTA COUNTY

NPDES NO. CA0030074  
ORDER NO. 97-045

CONSISTS OF

PART A (August 1993) &  
PART B

## **PART B**

### **POINT MOLATE SITE WASTEWATER TREATMENT PLANT**

#### **I. DESCRIPTION OF SAMPLING STATIONS**

##### **A. INFLUENT**

<u>Station</u>	<u>Description</u>
A-001	At any point in the french drain stormwater runoff (ponds) at which all waste tributary to the system is present and preceding any phase of treatment.
A-002	At any point in the packaged groundwater treatment plant at which all waste tributary to the system is present and preceding any phase of treatment.

##### **B. EFFLUENT**

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from french drain stormwater runoff (ponds) between the point of discharge and the point at which all waste tributary to that outfall is present, but prior to combining with the discharge from the packaged groundwater treatment plant. (Navy Code IS04).
E-002	At any point in the discharge pipeline from the packaged groundwater treatment facility at which point all waste tributary to that discharge is present, but prior to combining with the discharge from the french drain stormwater runoff.
E-003	At any point in the discharge pipeline where both the packaged groundwater treatment facility flow and the french drain stormwater flow are present

##### **C. LAND OBSERVATIONS**

<u>Station</u>	<u>Description</u>
P-1 through P-"n"	Located at the corners and midpoints of the perimeter fenceline surrounding the treatment facilities. (A sketch showing the location of these stations will accompany each annual report).

##### **D. OVERFLOWS AND BYPASSES**

<u>Station</u>	<u>Description</u>
O-1 through O-"n"	Bypass or overflows from manholes collection systems, and or wastewater ponds.

NOTES:

1. A map and description of each known or observed overflow or bypass shall accompany each monthly report. A summary of these occurrences and their locations shall be included with the Annual Report for each calendar year.
2. Each occurrence of a bypass or overflow shall be reported to the Regional Board in accordance with the reporting requirements specified in Sections F.1 and F.2 of Self-Monitoring Program Part A.
3. A sketch showing the locations of the perimeter monitoring stations shall accompany each annual report for each calendar year.

II. SCHEDULE OF SAMPLING AND ANALYSIS


- A. The schedule of sampling and analysis shall be that given in Table 1 (attached).
- B. Sample collection, storage, and analyses shall be performed according to requirements in the latest 40 CFR 136, in the Permit, or as specified by the Executive Officer.
- C. For those constituents where the total effluent concentration is averaged according to Provision E. 11. a. of the Order, the sampling at points E-001 and E-002 must take place at the same time.

III. REPORTING REQUIREMENTS

- A. General Reporting Requirements are described in Section C of this Board's "Standard Provisions and Reporting Requirements", dated August 1993.
- B. Self-Monitoring Reports for each calendar month shall be submitted monthly, by the fifteenth day of the following month. The required contents of these reports are described in Section F.4 of Part A.
- C. An Annual Report for each calendar year shall be submitted to the Board by January 30 of the following year. The required contents of the annual report are described in Section F.5 of Part A.
- D. Any Overflow, bypass or significant non-compliance incident that may endanger health or the environment shall be reported according to Sections F.1 and F.2 of Part A. The date, time, duration, location, and estimated volume of each bypass or overflow shall be included in each monthly report.

I, Loretta K. Barsamian, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Order No. 97-.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer, pursuant to 40 CFR 122.62 and 124.4.

  
 LORETTA K. BARSAMIAN  
 Executive Officer  
 Effective Date: 3-19-97

Attachments:

Table 1 - Schedule of Sampling, Measurement and Analysis  
 Part A, dated August 1993

Self-Monitoring Program - Attachment A  
 Pt. Molate Wastewater Treatment Plant - NPDES Permit No. CA0030074  
 Order No. 97-

**Table 1**  
**SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS OF PHYSICAL**  
**PARAMETERS**

Sampling Station	A-001 (ponds)	E-001 (ponds)			A-002 (plant)	E-002 (plant)			All P	All O (10)
Type of Sample	C-24	G	C-24	Cont	C-24	G	C-24	Cont	O	O
Flow Rate (mgd) (1)	D			D	D			D		
BOD, 5-day, 20 C (mg/l & kg/day)	W		W							
Total Suspended Solids (mg/l & kg/day)	W		W							
Settleable Solids (ml/l- hr)		W				W				
pH (units) (2)		W				W				
Temperature C		W				W				
Dissolved Oxygen (mg/l & % Saturation)		W				W				
Cyanide (3)			2/Y				2/Y			
Phenolic Compounds			2/Y				2/Y			
All Applicable Standard Observations		D				D				

**Table 2**  
**SCHEDULE FOR CHEMICAL PARAMETERS SAMPLING - FRENCH DRAIN STORMWATER RUNOFF (PONDS)**

Period	Parameter	Frequency
Short term (first 3 months of resumed operation of the ponds)	TPH-extractable (C-24) (4)	W - both (Influent) A-001 and (effluent) E-001 sampling locations
	PAHs (C-24) (5)	W - effluent only (E-001)
	Volatile Organic Compounds (VOCs) (G) (6)	W - effluent only (E-001)
	PolyChlorinated BiPhenols(PCBs) (G) (7)	M - effluent only (E-001)
	Total Metals (C-24) (8)	W - effluent only (E-001)
	Bioassays (C-24) (9)	2/M - effluent only (E-001)
Long term (after the first 3 months of resumed operation)	TPH-extractable (C-24)	M - both A-001 and E-001 sampling locations
	PAHs (C-24)	2M - E-001 only
	VOCs (G)	M - E-001 only
	PCBs (G)	Y - E-001 only
	Total Metals (C-24)	2/Y - E-001 only
	Bioassays (C-24)	M - E-001 only

**Table 3**  
**SCHEDULE FOR CHEMICAL PARAMETERS SAMPLING - PACKAGED GROUNDWATER TREATMENT PLANT**

Period	Parameter	Frequency
Short term (first 3 months of groundwater treatment)	TPH-extractable (C-24)	W - both (influent) A-002 and (effluent) E-002 sampling locations
	PAHs (C-24)	W - both A-002 and E-002 sampling locations
	VOCs (G)	W - both A-002 and E-002 sampling locations
	PCBs (G)	M - both A-002 and E-002 sampling locations
	Total Metals (C-24)	W - E-002 only
	Bioassays (C-24)	2/M - E-002 only

Long term (period following short term)	TPH-extractable (C-24)	M - both A-002 and E-002 sampling locations
	PAHs (C-24)	2M - E-002 only
	VOCs (G)	M - E-002 only
	PCBs (G)	Y - E-002 only
	Total Metals (C-24)	2/Y - E-002 only
	Bioassays (C-24)	M - E-002 only

### LEGEND

#### TYPES OF SAMPLES

G = grab sample  
C-24 = composite sample (24 hour)  
Cont = continuous sampling  
O = observation  
C = composite sample  
hourly for length of one discharge

#### TYPES OF STATIONS

A = treatment facility influent station  
E = waste effluent station  
L = basin and/or pond levees stations  
C = receiving water station  
P = treatment facilities perimeter station  
OV = bypasses or overflows from manholes, pump stations, or collection systems

#### FREQUENCY OF SAMPLING

E = each occurrence	2/H = twice per hour	2H = every 2 hours
H = once each hour	2/W = 2 days per week	2D = every 2 days
D = once each day	5/W = 5 days per week	2W = every 2 weeks
W = once each week	2/M = 2 days per month	2M = every 2 months
M = once each month	2/Y = once in March & Oct	Cont = continuous
Y = once each year	3/Y = once each in March, July, & Nov.	
	Q = quarterly, once each in March, June, Sept., & Dec.	

#### FOOTNOTES FOR TABLE 1:

1. Flow Rate - Effluent flows shall be measured in terms of an Average Daily Flow Rate (Million Gallons per Day, MGD)

The discharger shall determine the two species to be used as specified in Provision F.4 of Order No. 94-014. The tests shall be parallel 96-hour flow through bioassays. The discharger shall perform the tests according to protocols approved by the USEPA, State Board, published by the American Society for Testing and Material (ASTM), or American Public Health Association. Effluent used for fish bioassays must be dechlorinated prior to testing. Monitoring of the bioassay water shall include, on a daily basis, the following parameters: pH, dissolved oxygen, and temperature. These results shall be reported.

2. If pH is monitored more than once during any day, then daily minimum and maximum for pH shall be reported.

3. The discharger may analyze for cyanide as Weak Acid Dissociable Cyanide using protocols specified in Standard Method No. 4500-CN-I, latest edition.

4. Total petroleum hydrocarbons (TPH) as extractable (e), diesel, JP5, and bunker fuel, should be analyzed using U.S. Environmental Protection Agency (EPA) Method 8015.

5. Polycyclic Aromatic Hydrocarbons (PAHs) should be analyzed using EPA Method 8310. Note that the samples must be collected in amber glass containers. An automatic sampler which incorporates glass sample containers and keeps the samples refrigerated at 4°C and protected from light during compositing may be used. The 24-hour composite samples may consist of eight grab samples collected at 3-hour intervals. The analytical laboratory shall remove flow-proportioned volumes from each sample vial or container for the analysis.

6. VOCs should be analyzed using EPA Method 8240.

7. PCBs should be analyzed using EPA Method 8080. Please note that the Executive Officer may discontinue the monitoring requirement for PCBs for both the treatment ponds and/or the package groundwater treatment plant after the first three months if the discharger has proven that PCBs are not contained in the respective effluent from either stream.

8. Total Metals should be analyzed using the EPA Method 7000 series.

9. The discharger shall perform a bioassay on two of the following three species: three-spine stickleback, rainbow trout, and fathead minnow.

10. Overflows -

(a) Flow: For all overflow events, a best estimate of the total overflow volume (gallons) shall be reported.

(b) BOD: For any overflow event which involves discharge of wastewater to any surface water or waterway (including dry streams and drainage channels), grab samples shall be taken and analyzed for BOD.

#### NOTES FOR TABLE 1:

1. Grab Samples shall be collected coincident with samples collected for the analysis of regulated parameters. Grab samples must be collected in glass containers. Polycarbonate containers may be used to store tributyltin samples.

2. If any effluent sample is in violation of limits, except those for metals, cyanide, PAH's, phenols, and fish bioassay, sampling shall be increased for that parameter to at least daily or greater until compliance is demonstrated in two successive samples. For metals, cyanide, PAH's and phenols, if any effluent sample is in violation of limits, sampling frequency shall be increased to monthly until compliance is demonstrated in two successive samples. If a fish bioassay results in violation of limits, then additional tests shall be initiated in sequence until compliance is demonstrated.

3. All flow other than to the outfall (e.g., sludge) shall be reported monthly. Daily records shall be kept of the quantity and solids content of dewatered sludge disposed of and the location of disposal.

4. Detection Limits - Laboratory analyses shall be conducted in such a manner as to provide analytical information sufficient to determine compliance with the applicable effluent limitations (Effluent Limitations B.7 of Permit). If the necessary analytical performance is unable to be achieved, the Discharger may request, with supporting documentation, approval from the Executive Officer to allow the use of the best achievable analytical performance. All constituents shall be reported in mg/l or ug/l, and kg/day.

5. During any time when bypassing occurs from any treatment unit(s) in the treatment facilities, the monitoring program for the effluent discharged shall include the following in addition to the above schedule for sampling, measurement and analyses:

a. Composite sample on an hourly basis for the duration of the bypass event for BOD, and Total Suspended Solids analyses. Grab samples at least daily for Settleable Matter.

b. Daily receiving water sampling and observations shall be performed until it is demonstrated that no adverse impact on the receiving water is detected (receiving water monitoring shall be performed only for bypasses which occur for more than 24 hours, and that result in violation of any effluent limitation (receiving water monitoring is not necessary during bypass events related to wet weather flows)).